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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,742	09/30/2004	Nobuyuki Okubo	1391.1063	9833
21171	7590	10/02/2007		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER CARTER, AARON W	
			ART UNIT	PAPER NUMBER
			2624	
			MAIL DATE	DELIVERY MODE
			10/02/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/509,742

Applicant(s)

OKUBO, NOBUYUKI

Examiner

Aaron W. Carter

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/30/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 2 and 6 are objected to because of the following informalities:

As to claim 2, in line 2, the phrase "further comprises generating unit" appears to be grammatically incorrect:

As to claim 6, in line 2, the phrase "image data that is not by processed" appears to be grammatically incorrect.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,467,410 to Bloomberg in view of USPN 6,501,556 to Nishii.

As to claim 1, Nishii discloses an image processing apparatus comprising:

a determining unit to determine whether or not an image of a page is an image primary drawn on the page (*column 2, lines 24-25, wherein the blank page detector correspond to determining whether or not an image of a page is an image primary drawn on the page*); and  
an output unit to eliminate image data of a page containing no image primary drawn and to output image data of a page containing an image primary drawn (*column 2, lines 9-28, wherein the blank pages corresponding to no image primary drawn are not output and a page containing an image primary drawn are output*).

Nishii does not expressly disclose an extracting unit to generate a binary image from image data and to extract fragments having continuous pixels and determining unit to determine whether or not an image of a page is an image primary drawn on the page on a basis of characteristics of the extracted fragments.

However, Bloomberg discloses an image processing apparatus comprising:

An extracting unit to generate a binary image from image data and to extract fragments having continuous pixels (*column 5, lines 14-16, wherein connected ON pixels correspond to fragments having continuous pixels*);

A determining unit to determine whether or not an image of a page is an image primary drawn on the page on a basis of characteristics of the extracted fragments (*column 5, lines 16-20, wherein it is determined whether or not an image of a page is blank corresponding to determining whether or not an image of a page is an image primary drawn on the page, the determination is made based on the number and size of connected pixels*).

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Nishii & Bloomberg are combinable because they are from art of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the extracting unit and determining unit, as taught by Nishii, with the image processing apparatus disclosed by Bloomberg.

The suggestion/motivation for doing so would have been to provide a robust technique for quickly determining a blank page (Nishii, column 1, lines 40-44).

Therefore, it would have been obvious to combine Bloomberg with Nishii to obtain the invention as specified in claim 1.

As to claim 3, the combination of Nishii and Bloomberg discloses the image processing apparatus according to claim 1, wherein the determining unit determines whether or not the fragment is the image primary drawn on the basis of size of the extracted fragments (*Bloomberg, column 5, lines 14-16*).

As to claim 4, the combination of Nishii and Bloomberg discloses the image processing apparatus according to claim 1, wherein the determining unit determines that the fragments are a character image to be processed in a case that the extracted fragments are arranged in a range on the order of the size of a character (*Bloomberg, column 5, lines 14-26*).

As to claim 5, the combination of Nishii and Bloomberg discloses the image processing apparatus according to claim 1, wherein the determining unit determines that the fragments are

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image data that is not to be processed in a case that the extracted fragment have characteristics corresponding to a filing hole of the original (*Bloomberg, column 6, lines 4-8*).

As to claim 6, the combination of Nishii and Bloomberg disclose the image processing apparatus according to claim 1, wherein the determining unit determines the fragments are image data that is not be processed in a case that the extracted fragments have characteristics that can appear in a margin of the original during reading (*Bloomberg, column 5, lines 5-10*).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Nishii and Bloomberg as applied to claim 1 above, and further in view of USPN 7,057,595 to Benyoub et al. ("Benyoub").

As to claim 2, the combination Nishii and Bloomberg discloses the image processing apparatus according to claim 1.

The combination of Nishii and Bloomberg does not disclose expressly wherein the extracting unit further comprises generating unit to generate binary data from multi-valued image data, and the generating unit binarizes a pixel of interest on a basis of at least a relative difference in density between the pixel of interest and adjusting pixels.

However, Benyoub discloses an extracting unit further comprises generating unit to generate binary data from multi-valued image data, and the generating unit binarizes a pixel of interest on a basis of at least a relative difference in density between the pixel of interest and adjusting pixels (column 3, line 64 – column 4, line 50).

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Nishii, Bloomberg & Benyoub are combinable because they are from the same art of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the generating unit, as taught by Benyoub, with the image processing apparatus disclosed by the combination of Nishii and Bloomberg.

The suggestion/motivation for doing so would have been provide a quality conversion process of an image to a binary image (Benyoub, column 1, lines 46-63).

Therefore, it would have been obvious to combine Nishii and Bloomberg with Benyoub to obtain the invention as specified in claim 2.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 6,233,057 to Ota discloses blank page detection.

USPN 5,282,050 to Ishizuka et al. discloses blank page detection.

USPN 5,550,614 to Motoyama discloses blank page detection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron W. Carter whose telephone number is (571) 272-7445.

The examiner can normally be reached on 8am - 4:30 am (Mon. - Fri.).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Aaron Carter  
AU 2624